

UNITED STATES DISTRICT COURT  
FOR THE  
DISTRICT OF VERMONT

VERMONT FEDERATION OF SPORTSMEN'S :  
CLUBS, ET AL., :  
: Plaintiffs, :  
: :  
v. : Case No. 2:23-cv-710  
: :  
MATTHEW BIRMINGHAM, ET AL., :  
: :  
Defendants. :

**OPINION AND ORDER**

Plaintiffs, corporate entities affiliated with gun ownership and several Vermont residents, filed this action against Defendants, high-level Vermont state officials. Plaintiffs allege that 13 V.S.A. § 4021, which prohibits possession and sale of "large capacity ammunition feeding device[s]," and 13 V.S.A. § 4019a, which prohibits transfer of a firearm without a background check or expiration of a waiting period, are unconstitutional under the Second Amendment. ECF No. 1 at 12, 25. On December 20, 2023, Plaintiffs filed a motion for a preliminary injunction against enforcement of the Vermont laws. ECF No. 2. A hearing on that motion is set for May 23, 2024. ECF No. 36. In anticipation of that hearing, Plaintiffs filed a motion to exclude expert testimony. ECF No. 30. For the following reasons, Plaintiffs' motion is **denied**.

### **DISCUSSION**

Federal Rule of Evidence 702 states that an expert witness may testify if "the proponent demonstrates to the court that it is more likely than not that:"

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case.

Fed. R. Evid. 702. When parties seek to introduce expert testimony in accordance with Rule 702, the Court has "the task of ensuring that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *United States v. Willis*, 14 F.4th 170, 185 (2d Cir. 2021) (citing *Daubert v. Merrell Dow Pharmas., Inc.*, 509 U.S. 579, 597 (1993)). The subject of an expert's testimony must be "scientific knowledge," which requires a level of knowledge beyond mere subjective belief, and which must be grounded in the methods and procedure of science. *Daubert*, 509 U.S. at 589-90.

Evidence - including expert testimony - must be relevant in order to be admissible. In other words, it must be sufficiently tied to the facts of the case to "make the existence of any fact that is of consequence to the determination of the action more or less probable than it would be without the evidence." Fed. R.

Evid. 401. The party seeking admission of expert testimony bears the burden of establishing its admissibility by a preponderance of the evidence. *United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007). The Supreme Court has emphasized the “liberal thrust” of the Federal Rules of Evidence, favoring admissibility of expert opinion testimony. *Daubert*, 509 U.S. at 588.

Many of Plaintiffs’ arguments challenge the relevance of the State’s experts’ testimony. Accordingly, definition of the applicable substantive legal standard will clarify which facts are “of consequence to the determination of the action.” Fed. R. Evid. 401; see also ECF No. 40 at 5 (“[R]elevance in this case is governed by the Supreme Court’s holding in *Bruen*.”). The Second Circuit, discussing the Supreme Court’s “trilogy” of 21st-century cases interpreting the Second Amendment, has articulated the legal standard for evaluating restrictions on the right to bear arms as follows. *Antonyuk v. Chiumento*, 89 F.4th 271, 298 (2d Cir. 2023). First, a court must consider whether “the Second Amendment’s plain text covers an individual’s conduct.” *Id.* (quoting *New York State Rifle & Pistol Ass’n, Inc. v. Bruen*, 597 U.S. 1, 24 (2022)). This text-based inquiry requires assessment of whether the restricted weapon is “in common use at the time,” as opposed to “highly unusual in society at large.” *Bruen*, 597 U.S. at 32 (quoting *D.C. v. Heller*, 554 U.S. 570, 627 (2008)); *Antonyuk*, 89 F.4th at

295. If the Second Amendment covers the restricted conduct, “the Constitution presumptively protects that conduct,” and to overcome that presumption, the government must “justify its regulation by demonstrating that it is consistent with the Nation’s historical tradition of firearm regulation.” *Antonyuk*, 89 F.4th at 298 (quoting *Bruen*, 597 U.S. at 24). This is a two-step framework, “with the first step based on text and the second step based on history.” *Id.*; see also *Ocean State Tactical, LLC v. Rhode Island*, 95 F.4th 38, 43 (1st Cir. 2024).<sup>1</sup>

The State seeks to introduce evidence from five purported experts on discrete issues. The Court will describe and analyze each proposed expert’s testimony below.

#### **A. Lucy Allen**

Lucy Allen is a Senior Managing Director of an economic consulting group. ECF No. 24-2 at 3. She holds a bachelor’s degree from Stanford and three graduate degrees from Yale (M.B.A., M.A., and M.Phil.). *Id.* The State seeks to introduce Allen’s testimony on “the number of rounds of ammunition fired by individuals using a gun in real-life self-defense” and “the

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<sup>1</sup> There are several disputed points regarding the applicable legal standard. The Court need not resolve those for purposes of the *Daubert* issue; this articulation of the standard is simply to determine what evidence *may* be relevant to the cause of action.

outcomes when large-capacity magazines are used in public mass shootings, including the associated number of casualties.” *Id.*

After analyzing more than 736 incidents in the NRA Armed Citizen database and 200 news stories from a random sample of 4,800 detailing incidents of self-defense, Allen found that “it is extremely rare for a person . . . to fire more than 10 rounds [when using a firearm in self-defense].” *Id.* at 4. Her research revealed only two incidents “where more than 10 rounds were used.” *Id.* Allen also analyzed roughly 200 mass shootings from four different sources between 1982 and 2022 and found that “(1) large-capacity magazines are often used in mass shootings; (2) both injuries and fatalities were higher in mass shootings that involved large-capacity magazines than in other mass shootings; (3) it is common for offenders to fire more than 10 rounds when using a large-capacity magazine in mass shootings; and (4) the majority of guns used in mass shootings were obtained legally.” *Id.*

Plaintiffs first argue that Allen has “no expertise with reference to the” relevant inquiry. ECF No. 30 at 6. They state that none of her testimony references the history and tradition of firearm regulation. *Id.* This is, essentially, a relevance objection.<sup>2</sup> As the State notes, Plaintiffs do not object to

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<sup>2</sup> It is unclear whether Plaintiffs’ challenges in Section IV.a.i of their motion (ECF No. 30 at 5-7) are to the experts’

Allen's "expertise to review and analyze data," or that "her methodology was unsound." ECF No. 37 at 6.<sup>3</sup> The Court concludes that Allen's testimony is relevant to the first step of the *Bruen* inquiry. Whether – and to what extent – LCMs are used for self-defense bears on a question material to the litigation: whether LCMs are in "common use."<sup>4</sup> See, e.g., *Nat'l Ass'n for Gun*

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credentials or to the relevance of their testimony. See ECF No. 30 at 5 (header (a) stating that testimony is inadmissible under *Daubert* because it is "irrelevant under *Bruen*," while subheader (i) states "the State's experts do not have any scientific, technical, or specialized knowledge"); ECF no. 40 at 2-3 (arguing that Plaintiffs' challenges are to the experts' "methodology"). The Court understands Plaintiffs' arguments under Section IV.a.i as challenges to the relevance of the State's experts' credentials, because they do not directly attack the experts' qualifications but instead simply argue that the experts are not well-suited to testify on the *Bruen* issue. The Court will consider them accordingly.

<sup>3</sup> In their reply brief, Plaintiffs assert that Allen's data suffers from "fundamental data quality flaws" and that "basic math is not expertise." ECF No. 40 at 5-6. This argument was only present in a footnote of the original motion, and cursorily cites another court's conclusion that Allen's research "lacks the usual indicia of accuracy and reliability of admissible evidence." ECF No. 30 at 8 (citing *Duncan v. Bonta*, No. 17-CV-1017-BEN (JLB), 2023 WL 6180472, at \*14 (S.D. Cal. Sept. 22, 2023)). This is inadequate argumentative depth for this assertion to warrant detailed consideration. Second, *Duncan* involved a "weight" determination, not an admissibility determination. *Id.* And third, the existence of more defensive handgun uses than Allen cites does not discount the effectiveness of her study (despite *Duncan*'s conclusion to the contrary). Her review of the NRA data is holistic, and Plaintiffs have not stated why random selection of a subset of news articles on self-defense, ECF No. 24-2 at 4, represents a poor methodological choice.

<sup>4</sup> For purposes of this motion, the Court does not decide that common use "for self-defense," *Heller*, 554 U.S. at 636, is the exclusive analytical framework for step one of the *Bruen* inquiry. See ECF No. 24 at 12 (arguing that it is); ECF No. 2-1

*Rts. v. Lamont*, No. CV 3:22-1118 (JBA), 2023 WL 4975979, at \*21 (D. Conn. Aug. 3, 2023) (assessing Allen's testimony in consideration of whether LCMs are used in furtherance of "the Second Amendment goal of self-defense."). Her expert testimony makes a "fact that is of consequence to the determination of the action" – namely, how LCMs are used – "more or less probable than it would be without" her testimony. Fed. R. Evid. 401.<sup>5</sup>

Plaintiffs also challenge Allen's testimony on hearsay grounds. ECF No. 30 at 8. First, if expert testimony drawing statistical conclusions based upon database records were to be excluded as hearsay, nearly all expert testimony would be excluded. Second, Federal Rule of Evidence 703 states that an expert's opinion is admissible regardless of whether the underlying facts are admissible. Because the underlying sources

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at 10 (arguing that the standard is whether the arms are in "common use for lawful purposes"); *Lamont*, 2023 WL 4975979, at \*12-14 (concluding that a weapon must be in common use for self-defense to be covered by the text of the Second Amendment). Whether LCMs are commonly used for self-defense is relevant to whether they are "commonly used" for lawful purposes, regardless of which standard is employed.

<sup>5</sup> Plaintiffs also argue that the relevant question is "what weapons are chosen for Americans for self-defense, not what weapons are deployed or fired in self-defense." ECF No. 30 at 8 (citing *Heller*, 554 U.S. at 629) (cleaned up) (emphasis added). This may be true, but the frequency at which weapons are fired in self-defense is still relevant to the question of which weapons are used in self-defense. Plaintiffs may seek to admit their own expert on how frequently individuals "keep" LCMs for self-defense, or the magnitude of their "deterrent effect," *id.* at 8-9, but relevance of other considerations to the ultimate inquiry creates a question of weight, not relevance.

of Allen's analysis - NRA data and news reports - are the kind that an expert would "reasonably rely" upon in forming an opinion on the subject, Allen's opinion is admissible.

**B. Dennis Baron**

Professor Dennis Baron is a Professor Emeritus and Research Professor at the University of Illinois, serving in both the English and Linguistics Departments. He holds a Ph.D. from the University of Michigan and did his dissertation on "historical aspects of the English language." ECF No. 24-5 at 3. He has also written several books on linguistics, and authored briefs referenced by the Supreme Court in *Heller*, 554 U.S. 570, and *Bruen*, 597 U.S. 1. His report is based on "professional knowledge and expertise," as well as "scientific linguistic methodology in the field of Corpus Linguistics," which involves analysis of "large, digitized corpora consisting of many millions of words." ECF No. 24-5 at 5.

Professor Baron would testify that "during the Founding Era and the Reconstruction Era, 'arms' was used as a general term for weapons . . . but did not include ammunition [or] ammunition containers." *Id.* This is based on analysis of broader phrases such as "arms and accoutrements" which, in Professor Baron's opinion, were used to specify items (accoutrements) other than firearms themselves. *Id.* at 6. Professor Baron would also testify that he has found "no lexical evidence that either

repeater firearms or repeater air guns were used as military weapons in England or America in the Founding Era, or that they were used as weapons of personal self-defense at that time." *Id.*

Plaintiffs state that Professor Baron's proposed testimony is "irrelevant" to the analysis required in this case. ECF No. 30 at 6. They argue that history itself and historical uses of terms are distinct, and that only the former is relevant. *Id.* Professor Baron's analysis of the historical understanding of the term "arms" is relevant to the first *Bruen* question: whether the government's regulation covers conduct protected by the Second Amendment. Resolution of that issue requires evaluating whether the restricted items - LCMs, in this case - qualify as "arms" under the Second Amendment. As Plaintiffs point out, courts have split over this question. Compare *Ocean State Tactical, LLC v. Rhode Island*, 646 F. Supp. 3d 368, 386-89 (D.R.I. 2022) (finding, for purposes of a preliminary injunction, that LCMs are not "arms") with *Lamont*, 2023 WL 4975979, at \*19 ("The Court concludes that LCMs are 'arms' for purposes of the Second Amendment."). Assessment of the historical record is the Court's task at step two of the *Bruen* analysis, but the antecedent question of whether the regulation

covers protected conduct requires textual analysis, and Professor Baron's research is relevant to that determination.<sup>6</sup>

Plaintiffs argue that assessment of whether magazines constitute protected "arms" under the Second Amendment is (1) settled in the affirmative and (2) illogical. ECF No. 30 at 9-10. They seem to assert that the Second Circuit's pre-*Bruen* decision, *New York State Rifle & Pistol Ass'n, Inc. v. Cuomo* ("Cuomo"), which struck down New York's seven-round load limit, shows that magazines are weapons protected by the Second Amendment. 804 F.3d 242, 264 (2d Cir. 2015). But that court explicitly declined to resolve whether LCMs are "arms." *Id.* at 263 n.127. In fact, it actually upheld New York's restriction on LCMs (again, without resolving the "arms" issue). *Id.* at 263-64. It also held that the state's seven-round load limit was unconstitutional, but explicitly noted that it was "considering not a capacity restriction, but rather a load limit." *Id.* at 264. The distinction mattered because "imposition of a load limit" would not "reduce the number of ten-round magazines in circulation," and was therefore "entirely untethered from the stated rationale of reducing . . . the number of [LCMs] in

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<sup>6</sup> The fact that Professor Baron previously reached a conclusion contrary to the Supreme Court on a related issue (whether the Second Amendment is an individual or a collective right) does not diminish the relevance of his testimony on this issue. ECF No. 40 at 6-7.

circulation.” *Id.* The question of whether magazines constitute “arms” was irrelevant to the conclusion that the load limit was irrational and ineffective. *Cuomo* does not settle this question, and does not make Professor Baron’s testimony irrelevant.

The “arms” question is not devoid of a “reasonable principle,” either. Plaintiffs state that there is no way to use a firearm without ammunition, rendering magazines integral to “arms” within the meaning of the Second Amendment, but the fact that having some magazine may be crucial to keeping and using a firearm says nothing about whether governments may impose outer limits on those magazines, which is the question before the Court.<sup>7</sup> Professor Baron’s understanding of the historical context of these terms is relevant to this determination.

**C. John Donohue**

Professor John Donohue is a law professor at Stanford Law School. He holds a law degree from Harvard and a Ph.D. in economics from Yale. He teaches a course on empirical law and economics issues involving crime and criminal justice and has “published extensively” on the impact of gun regulation (or the lack thereof) on crime. ECF No. 24-6 at 2. He has submitted expert declarations and provided expert testimony in many gun control cases both pre- and post-*Bruen*. *Id.* at 2-4.

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<sup>7</sup> This is a merits question on which the Court expresses no opinion.

Professor Donohue would testify that “[r]estrictions on the size of large-capacity magazines . . . can be expected to reduce deaths and injury from gun violence.” *Id.* at 4-5. He would also testify that “substantial empirical evidence illustrates that waiting periods prior to the purchase of weapons . . . will reduce suicides – particularly among young adults – and would be expected to reduce the risk of . . . enraged individuals buying firearms on the way to commit mass violence.” *Id.* at 5. Finally, Professor Donohue reports that restrictions on LCMs generally have “little or no effect on the ability of individuals to possess weapons for self-defense,” but “should have” a mitigating effect upon mass violence. *Id.*

Professor Donohue would also testify to the problem of mass shootings more broadly. He states that “the problem of public mass shootings in the United States is a serious and worsening national problem.” *Id.* He cites empirical literature to bolster this conclusion, and states that governments “began responding to this growing menace with . . . restrictions on the type of weaponry that [] facilitated mass shootings.” *Id.* at 5-6.

Professor Donohue’s declaration goes directly to the question of whether mass shootings are a social problem addressed by previous generations, or whether they are a novel challenge requiring legislative innovation. See *Bruen*, 597 U.S. at 27 (“The regulatory challenges posed by firearms today are

not always the same as those that preoccupied the Founders in 1791.”). This is a substantial consideration undergirding the historical analysis pursuant to *Bruen* and is therefore relevant to the case. Plaintiffs assert that Professor Donohue’s testimony is simply a reiteration of the “interest balancing” approach rejected by *Bruen*, and is a thinly veiled effort to overrule *Bruen* and other Second Amendment precedents. ECF No. 30 at 12. Professor Donohue’s causal claims, though, are not solely applicable to interest balancing frameworks. Empirical research on gun regulation and violence rates is relevant to the question of whether societal problems are new, and whether they correspondingly mandate new solutions.

Plaintiffs are correct that “reasoning by analogy” from a contemporary firearm regulation to historical regulation is a “commonplace task” for a lawyer or judge. ECF No. 30 at 5 (citing *Bruen*, 597 U.S. at 25). But reasoning by analogy requires an analog. That is what Professor Donohue’s testimony purports to provide.

**D. Randolph Roth**

Professor Randolph Roth is a professor of history and sociology at The Ohio State University. He has a B.A. in history from Stanford and Ph.D. in history from Yale. He teaches and researches with a primary focus on “criminology and the history of crime.” ECF No. 24-8 at 2. In 2009, Professor Roth authored a

book called *American Homicide* – an “interregional, internationally comparative study of homicide in the United States from colonial times to the present.” *Id.* He has published extensively on the “history of violence and the use of firearms in the United States.” *Id.* at 3. Professor Roth states that it is extremely challenging to study the history of violent crime, and that the only way to “obtain reliable historical homicide estimates is to review every scrap of paper on criminal matters in every courthouse,” jail, diary, and newspaper. *Id.* at 4. He has also testified in numerous comparable proceedings. *Id.* at 5-6.

Professor Roth would testify that increased American homicide rates correlate with “political instability, a loss of trust in government and political leaders, a loss of fellow feeling among citizens, and a lack of faith in the justice of the social hierarchy.” ECF No. 24-8 at 7. He would also testify that “the availability of guns,” especially “rapid-fire semiautomatic weapons and extended magazines in the late twentieth century, have pushed the homicide rate in the United States well beyond what it would otherwise have been.” *Id.* Professor Roth also wishes to address colonial firearm restrictions and the gradual development of firearm regulations. *Id.* at 7-8.

Plaintiffs briefly assert that Professor Roth's proposed testimony is irrelevant because "history in the general sense is irrelevant to this case." ECF No. 30 at 6. Professor Roth's declaration demonstrates expertise in the history of violent crime and the relationship between "extended magazines" and the American homicide rate. ECF No. 24-8 at 7. This is clearly relevant to *Bruen*'s mandate that courts consider whether a regulation "addresses a general societal problem that has persisted since the 18<sup>th</sup> century." *Bruen*, 597 U.S. at 26.

Plaintiffs assert that Professor Roth's testimony focuses primarily on the rise in violence stemming from "breechloading" guns, and that his declaration fails to evince a "dramatic technological change" or "unprecedented societal concern" as contemplated by *Bruen*. The Court disagrees with the first contention; Professor Roth's declaration traces homicide and mass killing rates as compared to advancing gun technology, and concludes that the advent of submachine guns led to increased threats to "public safety" and governmental regulation. ECF No. 24-8 at 34. And expert witnesses need not use the magic words to make their testimony relevant. Whether Professor Roth's testimony references changes sufficient to justify a regulatory innovation under *Bruen* is a determination based suited for a finder of fact.

**E. Robert Spitzer**

Professor Robert Spitzer is a professor of political science at the State University of New York at Cortland. He is currently teaching at William and Mary Law School. He has a Ph.D. in government from Cornell and has written extensively on American politics and gun policy. Professor Spitzer's "expertise includes the history of gun laws, gun policy in American politics, and related historical, legal, political, and criminological issues." ECF No. 24-10 at 2. He has provided witness testimony, expert testimony, and authored amicus briefs in myriad gun control cases. *Id.* at 3-4.

Professor Spitzer's declaration states that "[t]he current controversy surrounding legislative efforts to restrict large capacity magazines (LCMs) would seem to be a purely contemporary matter, responding to the modern phenomenon of mass shootings." *Id.* at 6. He would testify to the prevalence of assault weapon and LCM restrictions around the country. *Id.* at 7-8. He would also state that "restrictions on LCMs are [] historically grounded." *Id.* at 8.

With regard to waiting periods, Professor Spitzer would testify that three features of the contemporary gun purchasing landscape explain the rise of gun purchase waiting periods. *Id.* at 66. First, the rise of "mass production techniques" and "[r]apid, convenient, gun sales processes" are relatively new.

*Id.* Second, “no organized system of gun background checking could feasibly exist until the modern era.” *Id.* at 67. And finally, “homicide rates in the colonies and early Federal era were generally low, and when homicides occurred, guns were seldom used because of the time involved in loading them, their unreliability, and (especially for pistols) their inaccuracy.” *Id.* Additionally, Professor Spitzer would testify that there are “similar, analogous historical gun laws” notwithstanding the lack of statutory waiting periods, such as “laws regulating weapons and intoxication, and weapons licensing laws.” *Id.* at 68.

Professor Spitzer’s proposed testimony is relevant to this case. Contrary to Plaintiffs’ assertion that “policies and political choices relating to crime are outside the scope of this case in which the Supreme Court has held that the Constitution itself balanced the relevant interests,” ECF No. 30 at 6, the Supreme Court explained that one important element of reasoning by analogy to historical gun regulations is determining “if earlier generations addressed [a social problem] through materially different means.” *Bruen*, 597 U.S. at 26. In other words, analysis of the history of political response to gun-related problems is central to the Court’s mandate in this case. This also addresses Plaintiffs’ argument that experts may not testify on issues of law. ECF No. 30 at 13 (citing *United*

*States v. Bilzerian*, 926 F.2d 1285, 1294 (2d Cir. 1991)).

Professor Spitzer's testimony does not deal with whether Vermont's laws violate the Second Amendment. It deals with the history of American gun regulation, which is a verifiable issue of fact material to this litigation.

**F. Rule 403 Objection**

Plaintiffs state that the Court should exclude the State's expert testimony as "more prejudicial than probative" under Federal Rule of Evidence 403. ECF No. 30 at 14. Plaintiffs have not supported this contention with any detail, so that request is denied. Additionally, because the Court concludes that the State's experts are admissible, it need not hold a *Daubert* hearing. The risk of prejudice from overly broad testimony is substantially reduced because the Court is the finder of fact at this stage of litigation. *United States v. Brown*, 415 F.3d 1257, 1269 (11th Cir. 2005) (noting that restrictions on expert testimony are more relaxed in bench trials when "we are not concerned about dumping a barrage of questionable scientific evidence on a jury," and explaining that "[t]here is less need for the gatekeeper to keep the gate when the gatekeeper is keeping the gate only for himself.") (international quotations and citations omitted).

**CONCLUSION**

For the foregoing reasons, Plaintiffs' motion to exclude the State's expert witnesses (ECF No. 30) is **denied**. Plaintiffs may, of course, make oral objections to the experts' testimony at the hearing.

DATED at Burlington, in the District of Vermont, this 14<sup>th</sup> day of May, 2024.

/s/ William K. Sessions III  
Hon. William K. Sessions III  
U.S. District Court Judge